Media Serial Number Mode Page Proposal

To: Technical Committee T10
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Introduction

Today, the SCSI standards define methods to retrieve the serial number or product identification from the devices attached to the bus. The definition of the current support within the Inquiry and other commands is useful for the device, but may not be useful for the media of the device. Digital Rights Management efforts in the industry is driving removable media, and packet addressable removable media devices to enable methods for identifying the media's serial number.

In order to support this work across all popular interconnections and media types, it becomes necessary to define a command to have SCSI compliant devices return the media serial number, that is independent from other serial numbers, and can be used for digital rights software and management. For the majority of fixed media devices, this serial number will be the same as the serial number in use today, and as long as that number is completely unique for the manufacturer of the drive, will be sufficient for this effort.

Work is underway to implement this into other technologies, specifically ATA/ATAPI.

Proposal

- Allocate an unused or reserved Mode Page Code for returning the devices current Media Serial Number
- Define a new Mode Page under the Mode Page Format and Page Code section (see Table 1), and include the new definition in the Mode Page Code annex.

Media Serial Numbers are not defined to a minimum length, but should be long enough to uniquely identify that particular piece of media. This proposal does not attempt to define a method for serialization of specific media types, only that if the media has a serial number, that the device can delivery it to the host. Hosts would determine if the currently mounted media has a serial number by detecting the mode page support of the device.

Serial numbers will consist of only ASCII characters (code values 20h through 7Eh). Implementation is optional for fixed media devices.

Table 1 defines the Media Serial Number Mode Page.

Table 1

Media Serial Number Mode Page

Bit Byte	0	1	2	3	4	5	6	7
0	PS	Reserved	Page Code (XXh)					
1	Page Length (N-1)							
2	SNV	Reserved						
3	Reserved							
4 - N	Media Serial Number							

The Serial Number Valid (SNV) bit of one specifies that the data returned in the Media Serial Number fields is valid data.

The least significant ASCII character of the serial number shall appear as the last byte of a successful data transfer.

Non-removable media devices shall format the serial number as follows:
- Bytes 4h-Bh – SCSI INQUIRY Vendor ID data
- Bytes Ch-1Bh – SCSI INQUIRY Product ID data
- Bytes 1Ch-NNh – SCSI Vital Product Data Page 80h Serial Number Data